Claims

We claim:

1. A method comprising:

calculating at least a first and second vector magnitude value corresponding to at least a first carrier and a second carrier, respectively;

calculating a composite vector magnitude from the first and second vector magnitude values; and

attenuating at least one of the first and second carriers based on the composite vector magnitude.

2. The method of claim 1, wherein composite vector magnitude corresponds to a composite carrier comprising at least the first and second carriers.

3. The method of claim 1, wherein each carrier comprises an in-phase component and a quadrature phase component, and wherein each vector magnitude value is calculated by:

squaring the in-phase component and the quadrature component; and

summing the squares of the in-phase component and the quadrature component to obtain the composite vector magnitude.

4. The method of claim 1, wherein each carrier comprises an in-phase component and a quadrature phase component, and wherein each vector magnitude value is calculated by:

squaring the in-phase component and the quadrature component;

summing the squares of the in-phase component and the quadrature component; and

taking the square root of the sum of the squares of the in-phase and quadrature components to obtain the composite vector magnitude.

5. The method of claim 1, further comprising comparing the composite vector magnitude with a threshold, wherein the attenuating step is conducted if the composite vector magnitude exceeds the threshold.

6. The method of claim 5, wherein the attenuating step comprises multiplying at least one of the first and second carrier by an attenuation factor.

7. The method of claim 6, wherein the attenuation factor is based on characteristics of a multi-channel baseband signal modulating at least one of said first and second carrier.

8. The method of claim 1, further comprising:

comparing the first vector magnitude value with the second vector magnitude value; and

attenuating the first carrier if the first vector magnitude value is larger than the second vector magnitude value.

9. The method of claim 6, wherein the attenuating step is conducted if the first vector magnitude value is larger by a selected magnitude than the second vector magnitude value.

10. The method of claim 1, wherein the vector magnitude calculating step, the composite vector magnitude calculating step, the comparing step, and the attenuating step are carried out at a baseband processing stage.

11. A method for a plurality of carriers, each carrier having an in-phase component and a quadrature phase component, the method comprising:

calculating a plurality of vector magnitude values, each vector magnitude value corresponding to one of said plurality of carriers and calculated by squaring the in-phase component and the quadrature component of the carrier and summing the squares of the in-phase component and the quadrature component;

calculating a composite vector magnitude from the plurality of magnitude values; vector; and

attenuating at least one of the plurality of carriers by an attenuation factor based on the composite vector magnitude.

12. The method of claim 11, wherein calculating the vector magnitude value further comprises taking the square root of the sum of the squares of the in-phase and quadrature components to obtain the vector magnitude value.

13. The method of claim 11, wherein the attenuation factor is based on characteristics of a multi-channel baseband signal modulating at least one of said first and second carrier.

14. The method of claim 11, further comprising:

comparing at least two of said plurality of vector magnitude values; and

attenuating at least one of said plurality of carriers based on the comparing step if at least one of said carriers is larger by a selected magnitude than another vector magnitude value.

15. The method of claim 11, wherein the vector magnitude calculating step, the composite vector magnitude calculating step, the comparing step, and the attenuating step are carried out at a baseband processing stage.

16. The method of claim 11, further comprising comparing the composite vector magnitude with a threshold, wherein the attenuating step is conducted if the composite vector magnitude exceeds the threshold.